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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,872	07/24/2001	Yasumichi Kuwayama	Q65548	4044

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EXAMINER
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GUSHI, ROSS N

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 01/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/910,872

Applicant(s)

KUWAYAMA ET AL.

Examiner

Ross N. Gushi

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Drawings*

1. Figure 12 and 14 -19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, throughout the claims, it is not clear what exactly constitutes or defines a "taper surface." As disclosed, a pierce portion (in it's uncrimped state) has two planar surfaces that are oriented at an acute angle with respect to each other and applicant calls one surface a "taper surface" and implies that the other surface is not a taper surface. Given two intersecting planar surfaces, what distinguishes one as being the "taper surface" and the other as being just a surface? Is the distinction merely a matter of orientation of the terminal? For analysis, the "taper surface" is interpreted as a structure requiring two surfaces inclined toward each other.
4. Regarding claims 3, 5, applicant seems to be mixing in method limitations or limitations regarding steps in the process of crimping the terminal in an apparatus claim. The subject of claim 1 (and 4) is an uncrimped terminal (the "taper surface" only exists in the uncrimped state as understood by the examiner). The subject of claim 3 relates to the method of deforming the terminal. The limitations of claim 3 seem to contradict

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the limitations of claim 1. For example, in claims 1, 4, applicant claims that the piercing portions are erected from opposite sides of the plane portion and then in claims 3, 5, applicant claims that the tip is inverted toward the plane portion. For analysis, the limitations of claims 3, 5, are treated as claiming the structure of the terminal after it has been crimped.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1, 2, 4, and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami. Per claims 1, 4, 6, Murakami discloses an electric connecting terminal (figures 1-2) capable of being connected to a flat circuit body comprising a plane portion (at 2); a pair of piercing portions 3 erected from opposite side edges of the plane portion adapted to penetrate through a coating and a conductor of the flat circuit body and fold tips thereof in such a direction as to approach each other; and a "taper surface" for gradually reducing a thickness of the piercing portion provided on an internal surface of each piercing portion. Note that as disclosed in Murakami figures 1 and 2, the internal surface of portion 3 is made of two planar surfaces where the surface toward the tip of

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the portion 3 is beveled with respect to the lower surface, this being the same structure as disclosed in applicant's application as the "taper surface." (see attachment).

7. Per claims 2, 10 an external surface opposed to the internal surface of each piercing portion is provided with a taper surface for gradually reducing the thickness of the piercing portion (see figure 2).

8. Per claims 4, 8, Murakami discloses a portion which has a constant width adjacent to the plane portion (see attachment).

9. Per claims 7, 9, a width of the second portion becomes gradually narrow toward the tip thereof.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami as in claims 1 and 4 in view of Itoh et al. ("Itoh"). Murakami discloses the terminal as being crimped in the "B" or "F" style (figure 3) as opposed to the overlap style. Itoh discusses relative merits of the overlap style of crimping and the "B" or "F" style of crimping (col. 1, line 20 - col. 2, line 37), both styles being well known in the art. At the time of the invention, it would have been obvious to crimp the Murakami terminals using the overlap method of crimping as opposed to the "B" method of crimping, as

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discussed in Itoh. The suggestion or motivation for doing so would have been to take advantage of the known merits of the overlap style of crimping, including good electrical and mechanical performance as discussed in Itoh (see col. 2, line 20).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (703) 306-4508. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at (703) 308-2319. The phone number for the Group's facsimile is (703) 308-7766

rng


  
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Fig. 1

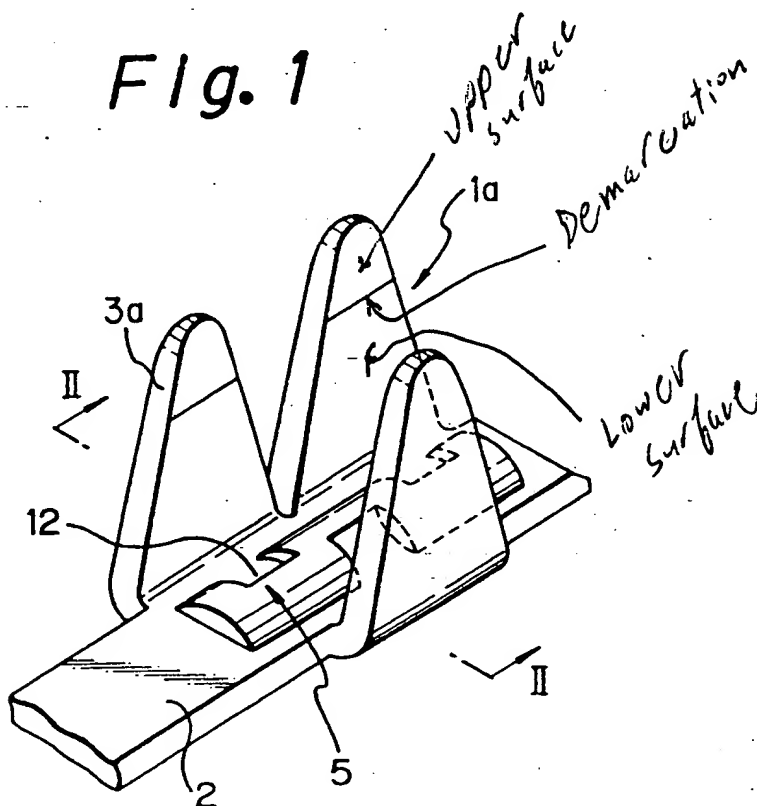


Fig. 2

